

Abstract:

The invention relates to a tribological device, in particular a miniature anti-friction bearing, with rolling bodies which are resistant to superheated steam up to a component temperature of 450 degrees and which travel along roller tracks, the structure of the rolling bodies being based on zirconium dioxide. According to the invention, this object is achieved by the fact that at least the surface of the rolling bodies consists of zirconium dioxide that is stabilized with MgO and/or CeO<sub>2</sub> and/or Sc<sub>2</sub>O<sub>3</sub>, the zirconium oxide at least partially having a tetragonal structure. In a further embodiment of the invention, the stabilization is achieved with Y<sub>2</sub>O<sub>3</sub>, the primary particle size being less than 300 nm, preferably less than 100 nm.